

Remarks

Claims 4-10 have been rejected for being an improper format for being multiply dependent on other claims. These claims have been amended.

Claims 1-3 have been rejected under 35 USC § 102(b) as being anticipated by the Cardinal et al reference. The Examiner suggests that the Cardinal et al reference teaches a matrix comprising chitosan and a disbursed macromolecule, including a polysaccharide. The chitosan is dissolved and the macromolecule is added. The Examiner believes the reference discloses a cross-linking agent, including succinaldehyde.

The Cardinal et al reference teaches the use of a chitosan as a biocompatible polymer matrix for the prolonged release of macromolecules such as growth hormones, insulin, heparin, dextrin and others. The chitosan can be stabilized by cross-linking the chitosan using known cross-linking agents such as glutaraldehyde, succinaldehyde, etc. The chitosan matrix containing the macromolecules is preferably dried at room temperature. It is further disclosed that the matrix is suitable for prolonged release of the active macromolecule when injected or implanted.

In distinction, the presently claimed invention describes a method for producing a collagen free cosmetic preparation wherein the chitosan is mixed with an immunological active β -(1,3) glucan and then cross-linked giving a cosmetic preparation that has improved qualities with respect to dermatological compatibility and flexibility without the need of a collagen as an aid for obtaining these qualities. These advantageous properties are achieved by the following means:

- By cross-linking the chitosan/glucan mixture the glucan is fixed into the chitosan matrix. The length of the glucan macromolecule, as well as many side chains, counteracts any movement.
- The gel-like quality of water-soluble yeast glucan renders collagen redundant.
- The preparation is protein free and consequently allergen free. This makes it dermatologically more compatible.
- The mechanical strength of the composition may be further improved by adding natural fibers like pectin, cellulose, etc., to the reaction mixture. Further, at the same time the cross-linked glucan/chitosan formulation will facilitate the incorporation of auxiliary substances like UV-protectants, antioxidants, waxes, etc.

There is no teaching in the Cardinal et al reference about cross-linking of a chitosan/glucan mixture or the resulting preparations of activity in cosmetics, particularly as facemasks, to anticipate the claimed invention.

The claims have been amended to define the invention in a clear manner and to avoid multiple dependent claim format.

It is requested that the claims now define patentable subject matter and meet the requirements of 35 USC § 102. An early Notice of Allowance is respectfully requested.

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